Attorney Docket No.: 056208.52669US Application No.: 10/642,584

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1. (CURRENTLY AMENDED) A multi-phase alternating-current rotational electric machine comprising:
 - a housing,
 - a rotor shaft rotatably installed in the housing,
 - a magnetized rotor fixed to the rotor shaft,
- a stator which is arranged such that the windings of the stator coil are wound around the stator core fixed to the housing,

multiple semiconductor switching devices, installed in the housing, which adjust currents of the stator, and

a heat sinks fixed to the <u>respective</u> semiconductor switching devices so that heat can be conducted, wherein

the semiconductor switching device is devices are electrically insulated from the heat sink sinks, and the heat sink is sinks are grounded to the housing as well as thermally separated in each phase.

- 2. (CURRENTLY AMENDED) A multi-phase alternating-current rotational electric machine comprising:
 - a housing,
 - a rotor shaft rotatably installed in the housing,
 - a magnetized rotor fixed to the rotor shaft,
- a stator which is arranged such that the windings of the stator coil are wound around the stator core fixed to the housing,

multiple semiconductor switching devices, installed in the housing, which adjust currents of the stator, and

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a heat sink sinks fixed to the <u>respective</u> semiconductor switching devices so that heat can be conducted, wherein

the semiconductor switching device is devices are electrically insulated from the heat sink sinks, the heat sink is sinks are grounded to the housing, and the temperature of the multiple semiconductor switching devices is are substantially determined in each phase.

3. (ORIGINAL) A multi-phase alternating-current rotational electric machine according to Claim 1, wherein

multiple fins are arranged on the base surface of said heat sink and the substantially full flow of the air entering into said housing passes through the multiple fins.

4. (ORIGINAL) A multi-phase alternating-current rotational electric machine according to Claim 1, wherein

multiple fins are arranged on the base surface of said heat sink and a cover, which has an opening almost identical to the projection of the heat sink in the direction of said rotor shaft, is provided.

5. (ORIGINAL) A multi-phase alternating-current rotational electric machine according to Claim 1, wherein

the base surface of said heat sink is placed in parallel with the direction of the diameter of said rotor shaft.

6. (ORIGINAL) A multi-phase alternating-current rotational electric machine according to Claim 5, wherein

said multiple fins of said heat sink are concentrically arranged with said rotor shaft as the center.

7. (ORIGINAL) A multi-phase alternating-current rotational

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electric machine according to Claim 1, wherein

said multiple fins located on the base surface of said heat sink are columnar and the multiple columnar fins are arranged on the base surface in a lattice-like configuration.

8. (ORIGINAL) A multi-phase alternating-current rotational electric machine according to Claim 1, wherein

said multiple fins located on the base surface of said heat sink are columnar and the multiple columnar fins are arranged on the base surface in a staggered configuration.

- 9. (NEW) A multi-phase alternating-current rotational electric machine according to Claim 1, wherein the heat sinks are completely separated into positive and negative U,V, and W phases.
- 10. (NEW) A multi-phase alternating-current rotational electric machine according to Claim 2, wherein the heat sinks are completely separated into positive and negative U,V, and W phases.